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Abstract

The Impact Of Amman Stock Market Activity On The Investment During The period (1980-2011).

Qusai Mohammed AL- tarawneh

Mu'tah University, 2013

The main aim of this study is to investigate the effect of Amman Stock Exchange (ASE) on investment during the period (1980 - 2011). In order to achieve the above objective the Vector Auto Regression model, also the Granger causality test, variance decomposition analysis and impulse response have been conducted to get the desired results . the study contains two models in which the first model measures the effect of the ASE and the interest rate on long run deposits on investment , where as the second model measures the effect of the main economic sectors in ASE on investment .

The study concluded that there is no significant effect of ASE on investment , and there is a negative significant effect of interest rate on the long run deposits on investment , the study also concluded that there is a positive significant effect of both sectors (finance and services) , and that there is no significant effect of industrial sector on investment .

Further more the study found that there is a causal relationship with one direction from investment to ASE , also there is a causal relationship with one direction from the interest rate on the long run deposits, and from the financial sector and the service sector toward investment, some of the important recommendations that the study concluded were to create a safely attractive environment for investment which makes the ASE more effective on the country level , and to develop the processes and methods of dealing the stocks in ASE and to employ the most recent international standards.

1.1 المقدمة

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2.1 مشكلة الدراسة

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And Economic Growth In Nigeria"

2009-1990

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"The Stock Market and Corporate Investment"
(Polk & Sapeinza, 2009)

"Stock Market Development And Private Investment Growth In Nigeria"
(Ezeoha. et al, 2009)

(2006 - 1970)

(VECM)

**"The Impact of Financial : (Abu Al-Haija, 2008)
Development on Domestic Investment"**

-1978)

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**The Role of the Stock Market in " (Xiao ,2004)
Influencing Firm Investment in China"**

(panel

data)

(fixed effects)

(1999-1992)

.generalized method of moments (GMM)

.(1999-1996)

**"Arab Stock Markets and (Bolbol & omran, 2004)
‘Capital Investment"**

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**"Do Stock Market Liberalizations (Henry, 1999)
Cause Investment Booms?"**

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-3.6	1534.6	1996		757.5	1980
10.3	1692.4	1997	58.7	1201.8	1981
0.5	1701.3	1998	15.0	1382.5	1982
-1.6	1673.5	1999	-24.6	1042.1	1983
-20.5	1330.5	2000	-22.1	811.8	1984
29.8	1727.2	2001	-3.2	786.0	1985
-1.6	1700.2	2002	-8.0	723.5	1986
53.8	2615.0	2003	10.1	796.9	1987
62.4	4245.6	2004	6.1	845.1	1988
92.9	8191.5	2005	10.4	932.7	1989
-32.6	5518.1	2006	-13.8	804.3	1990
36.3	7519.3	2007	24.3	1000.0	1991
-17.0	6243.1	2008	29.9	1299	1992
-11.6	5520.1	2009	22.0	1585	1993
-3.7	5318.0	2010	-9.4	1436	1994
-12.6	4648.4	2011	10.8	1591.7	1995

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	(275)	2011	
			(%39.17)

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%	()		%	()	
-40.67	248.58	1996	-	41.43	1980
42.91	355.24	1997	82.03	75.42	1981
30.72	464.37	1998	70.11	128.29	1982
-16.13	389.48	1999	10.24	141.43	1983
-14.06	334.72	2000	-58.06	59.32	1984
99.76	668.65	2001	12.50	66.73	1985
42.12	950.27	2002	4.18	69.52	1986
95.23	1855.18	2003	113.14	148.18	1987
104.47	3793.25	2004	-10.50	132.63	1988
344.76	16871.05	2005	177.16	367.59	1989
-15.77	14209.87	2006	-26.85	268.89	1990
-13.10	12348.10	2007	12.63	302.84	1991
64.54	20318.01	2008	192.88	886.95	1992
-52.43	9665.31	2009	9.21	968.61	1993
5.75	10221.43	2010	-48.89	495.08	1994
11.76	11423.17	2011	-15.37	418.96	1995

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Bendini,) (VAR)

$$Y_t = A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_n Y_{t-n} + U_t$$

$$I_t = \alpha_0 + \alpha_1 GTV_t + \alpha_2 IRD_t + U_t \quad (1)$$

$$I_t = \beta_0 + \beta_1 FINS_t + \beta_2 INDS_t + \beta_3 SERVS_t + U_t \quad (2)$$

(على الاستثمار)

حيث:

I_t

GTV_t

IRD_t

$FINS_t$

$INDS_t$

$SERVS_t$

U_i

4. 2. 1 اختبار جذر الوحدة Unit Root Test:

R^2

D-W

X_t

(Greene,2003)

$$E(x_t) = \mu \quad x_t \quad .1$$

$$\text{var}(x_t) = \sigma^2 \quad .2$$

$$\begin{aligned} & x_{t-k} \quad x_t \quad .3 \\ & \text{cov}(x_t, x_{t-k}) = \text{cov}(x_t, x_{t+k}) = \gamma_k \\ & \quad \quad \quad K \end{aligned}$$

$$\begin{aligned} & : \quad \text{Decay- Fuller(D-F)} \\ & Y_t = \rho Y_{t-1} + u_t \quad ; \quad \rho \in [-1, 1] \end{aligned}$$

$$\begin{aligned} & : \\ & Y_t - Y_{t-1} = \rho Y_{t-1} - Y_{t-1} + U_t \end{aligned}$$

$$Y_t = \delta Y_{t-1} + u_t \Delta \quad ; \quad \delta = \rho - 1$$

$$H_0$$

$$H_1$$

$$H_0: \delta = 0$$

$$H_1: \delta < 0$$

$$- \quad (\text{Serial Correlation})$$

$$(\text{ADF}) \text{ Augmented Decay-Fuller}$$

$$: (\text{Guajarat, Porter, 2009})$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + Y_{t-i} + \epsilon_i$$

$$\begin{aligned} & m \quad \epsilon_i \quad T \quad Y_t \\ & . \epsilon \end{aligned}$$

$$(4) \quad (\text{ADF}) \quad -$$

(GTV, INDS, SERVS)

(I, FINS, IRD)

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(4)

(ADF)

*	-3.699871	-4.784071	I		-2.627420	0.145851	I
			-	*	-3.689194	-3.768314	GTV
*	-3.689194	-4.236838	IRD		-2.621007	-2.188796	IRD
*	-3.670170	-6.512446	FINS		-2.619160	-2.920134	FINS
			-	*	-3.711457	-4.947755	INDS
			-	*	-3.711457	-4.796306	SERVS
						%1	.*

2.2.4 اختبار كوزم للاستقرارية :Cusum Stability Test

(Structural Change)

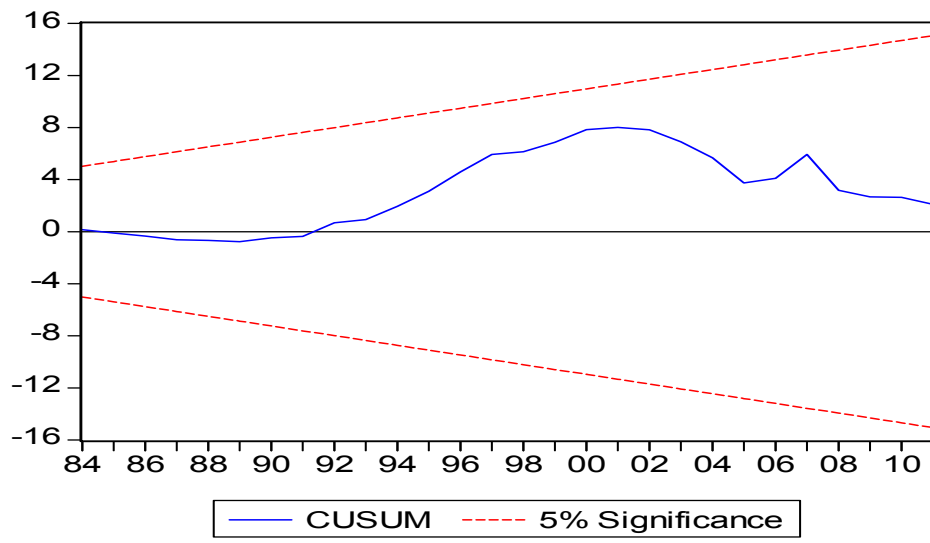
(±2 S.E)

.(Greene,2003)

(1)

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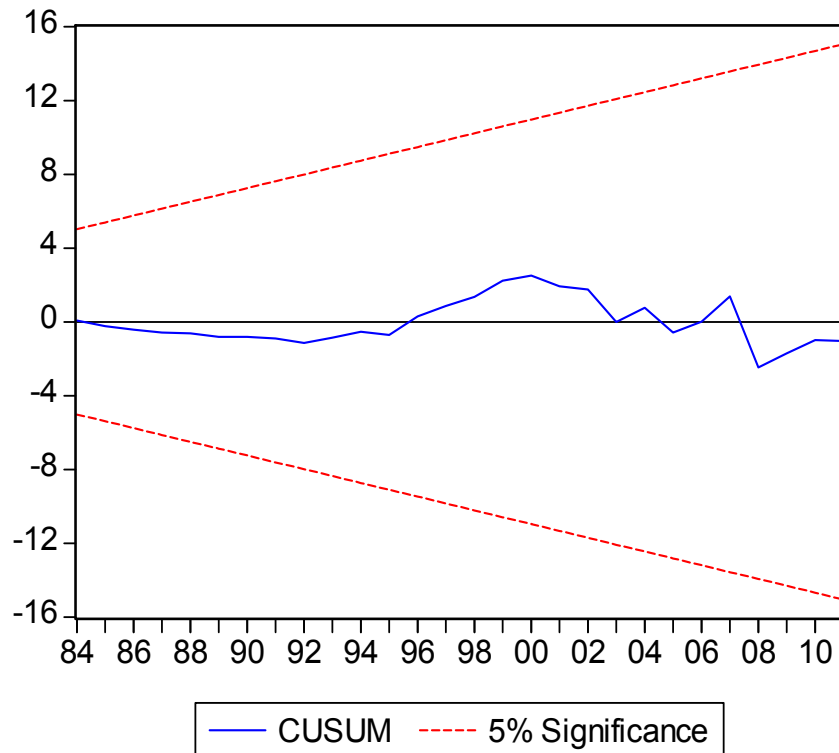


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4.2.3 اختبار العدد الأمثل لفترات التباطؤ:

: (2004)

(Shewhart

.1 (Akaike Information Criterion) (AIC)

(Likelihood Ratio Test)

.(AIC)

.2 (Schwartz's Information Criterion)(SC)

.(SBC)

(5)

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(LR)

(HQ ,FPE ,SC,AIC)

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SC Akaike

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Lag	LR	FPE	AIC	SC	HQ
0	NA	1.98e+13	39.13018	39.27644	39.17075
1	75.65424	1.12e+12	36.24760	36.83266	36.40987
2	20.29521	7.72e+11	35.84009	36.86394	36.12406
3	32.88745	1.95e+11	34.36759	35.83024	34.77327
4	16.36097	1.25e+11	33.72417	35.62562	34.25155
5	11.07174	1.08e+11	33.21398	35.55422	33.86306
6	17.91735*	2.28e+10	30.94776	33.72679	31.71854
7	13.34271	2.61e+09*	27.22019*	30.43802*	28.11268*

: (*)

: LR

: FPE

: AIC

: SC

: HQ

(6)

χ^2

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(6)

	I	GTV	IRD	χ^2
Lag 1	115.0024	112.9261	97.18321	362.0526
	[0.000000]	[0.000000]	[0.000000]	[0.000000]

(7)

(HQ ,FPE ,SC,AIC) (5)

(5) (3) (LR)

SC Akaike

.

(7)

Lag	LR	FPE	AIC	SC	HQ
0	NA	1.55e+22	62.44576	62.63774	62.50285
1	68.13750	2.33e+21	60.53379	61.49367	60.81921
2	114.1406	1.47e+19	55.37783	57.10561	55.89159
3	51.83095*	1.51e+18	52.86081	55.35649	53.60291
4	17.67887	1.45e+18	52.27811	55.54169	53.24854
5	18.28692	7.50e+17*	50.41547*	54.44696*	51.61424*

(8)

χ^2

.%1

(8)

	I	FINS	INDS	SERVS	χ^2
Lag 1	102.4362 [0.000000]	7.511257 [0.111214]	84.56708 [0.000000]	124.7963 [0.000000]	637.2978 [0.000000]
Lag 2	47.59274 [1.15e-09]	1.874426 [0.758841]	81.31686 [1.11e-16]	71.55290 [1.07e-14]	1049.929 [0.000000]

4.2.4 اختبار السببية:

(X) (Y) (X)
(Y)

(Engle and Granger,1987) :

$$Y_t = \sum_{i=1}^p \alpha Y_{t-i} + \sum_{i=1}^p \beta X_{t-i} + u_t$$

(H₀:β₁=β₂=β₃=...=β_n=0) :

(H₁: β₁ ≠0, β₂ ≠0... β_n ≠ 0) :

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. () (F)

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.(Y) (X)

(9)

(GTV و I)

%1

GTV I

%5 (IRD و I)

4.2.5 اختبار تحليل مكونات التباين: (Variance Decomposition)

،VAR

(Shock)

Cholaski)

(Decomposition

.(Wei 1990)

.(11)

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% 0.74

% 4.2

%3.89

%47.48

%49.62

(11)

Variance Decomposition of I:			
Period	I	GTV	IRD
1	100.0000	0.000000	0.000000
2	95.05982	0.739804	4.200376
3	86.91996	1.496162	11.58388
4	78.13721	2.051725	19.81106
5	70.20727	2.412171	27.38056
6	63.68832	2.631250	33.68043
7	58.59271	2.759153	38.64813
8	54.71389	2.831519	42.45459
9	51.80096	2.871098	45.32795
10	49.62806	2.891729	47.48021

(12)

(12)

Variance Decomposition of I:			
Period	I	GTV	IRD
1	100.0000	0.000000	0.000000
2	95.05982	0.228562	4.711618
3	86.91996	0.359005	12.72104
4	78.13721	0.395256	21.46753
5	70.20727	0.386560	29.40617
6	63.68832	0.363317	35.94837
7	58.59271	0.338941	41.06834
8	54.71389	0.318035	44.96807
9	51.80096	0.301493	47.89755
10	49.62806	0.288898	50.08304

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%100 .(13)

%64

% 28.2 % 2.86

%59.91

%12.82

%.0.81

(13)

Variance Decomposition of I:				
Period	I	FINS	INDS	SERVS
1	100.0000	0.000000	0.000000	0.000000
2	64.13190	2.856348	28.17777	4.833978
3	57.33899	18.24429	22.20714	2.209572
4	48.38897	30.73945	19.38899	1.482593
5	33.68741	51.42354	13.88094	1.008113
6	30.42987	57.24100	11.45490	0.874236
7	29.34658	59.22361	10.60498	0.824831
8	28.08361	60.73314	10.40098	0.782265
9	27.04761	60.92602	11.23450	0.791870
10	26.45101	59.91215	12.82011	0.816728

(14)

(14)

Variance Decomposition of I:				
Period	I	FINS	INDS	SERVS
1	100.0000	0.000000	0.000000	0.000000
2	64.13190	5.533876	0.058647	30.27558
3	57.33899	22.52793	0.319526	19.81355
4	48.38897	35.59320	0.459117	15.55870
5	33.68741	56.08580	0.301966	9.924830
6	30.42987	61.41156	0.239503	7.919069
7	29.34658	62.96216	0.245816	7.445449
8	28.08361	63.92776	0.263514	7.725120
9	27.04761	63.57916	0.291499	9.081729
10	26.45101	62.25760	0.356515	10.93487

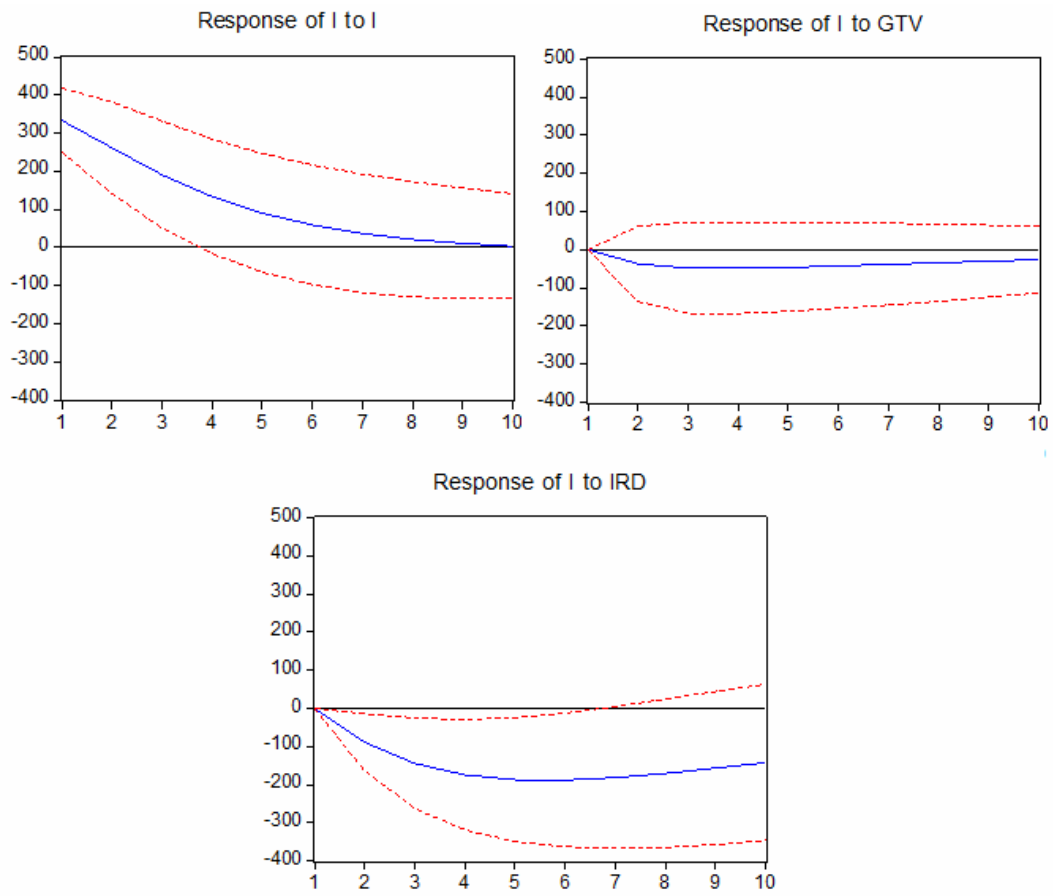
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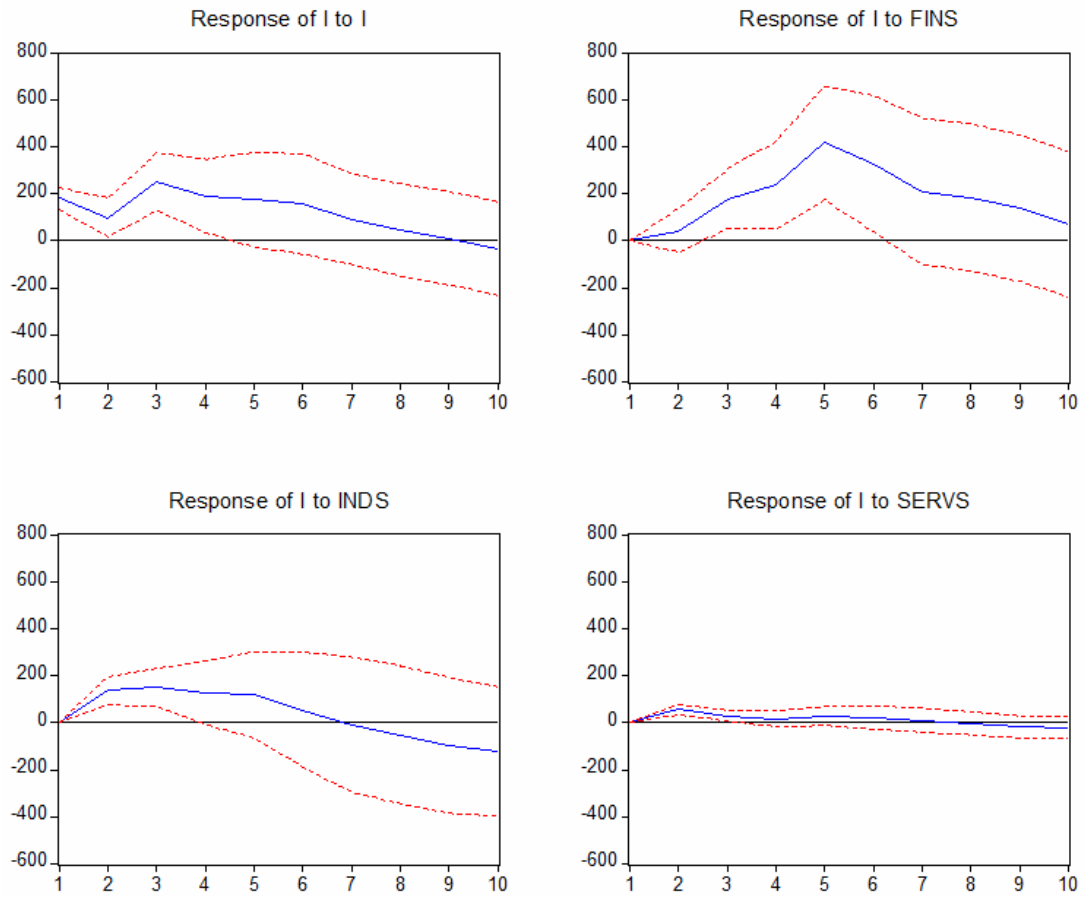
Response to Cholesky One S.D. Innovations ± 2 S.E.



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Response to Cholesky One S.D. Innovations ± 2 S.E.



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